AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of the claims in the application.

Listing of Claims

1. (Currently Amended) A method for treating a mammalian subject having a solid tumor *ex vivo,* comprising direct injection of a nucleic acid molecule encoding:

~~a) at least 100 contiguous amino acids of SEQ ID NO: 2 or 4; or~~

~~b) a polypeptide that is at least 50% homologous to SEQ ID NO: 2 or 4;~~

a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2; or

b) a polypeptide comprising the amino acid sequence of SEQ ID NO:4;

into cells of the tumor, ~~wherein said nucleic acid molecule encodes a human or mouse B7-2 molecule or a fragment thereof in a form suitable for expression, and wherein the B7-2 molecule or fragment thereof has the ability to costimulate a T cell and the ability to bind a CD28 or CTLA4 ligand,~~ such that the growth of the tumor is inhibited.

2. (Currently Amended) A method for modifying cells of a solid tumor *ex vivo* to express a B7-2 molecule ~~or a fragment thereof~~ comprising direct injection of a nucleic acid molecule encoding:

~~a) at least 100 contiguous amino acids of SEQ ID NO: 2 or 4; or~~

~~b) a polypeptide that is at least 50% homologous to SEQ ID NO: 2 or 4;~~

a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2; or

b) a polypeptide comprising the amino acid sequence of SEQ ID NO:4;

into cells of the tumor~~, wherein said nucleic acid molecule encodes a human or mouse B7-2 molecule or a fragment thereof in a form suitable for expression, and wherein the B7-2 molecule or fragment thereof has the ability to costimulate a T cell and the ability to bind a CD28 or CTLA4 ligand~~.

3. (Currently Amended) A method of increasing the immunogenicity of cells of a solid tumor *ex vivo* comprising direct injection of a nucleic acid molecule encoding:

~~a) at least 100 contiguous amino acids of SEQ ID NO: 2 or 4; or~~

~~b) a polypeptide that is at least 50% homologous to SEQ ID NO: 2 or 4;~~

a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2; or

b) a polypeptide comprising the amino acid sequence of SEQ ID NO:4;

into cells of the tumor, ~~wherein said nucleic acid molecule encodes a human or mouse B7-2 molecule or a fragment thereof in a form suitable for expression, and wherein the B7-2 molecule or fragment thereof has the ability to costimulate a T cell and the ability to bind a CD28 or CTLA4 ligand,~~ thereby increasing the immunogenicity of the tumor cells.

4. (Currently Amended) The method of any of claims 1-3, wherein the nucleic acid molecule encoding ~~a B7-2 molecule~~ the polypeptide comprising the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4 comprises the nucleic acid sequence shown in SEQ ID NO:1 or SEQ ID NO:3.

5. (Canceled)

6. (Currently Amended) The method of any of claims 1-3, wherein the nucleic acid molecule encoding ~~B7-2~~ the polypeptide comprising the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4 is in a viral vector.

7. (Original) The method of claim 6, wherein the viral vector is selected from the group consisting of a retroviral vector, an adenoviral vector, and an adeno-associated viral vector.

8. (Currently Amended) The method of any of claims 1-3, wherein the nucleic acid molecule encoding ~~B7-2~~ the polypeptide comprising the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4 is a plasmid expression vector.

9. (Original) The method of any of claims 1-3, wherein the tumor cells are further transfected with at least one nucleic acid molecule encoding a B7-3 protein.

10. (Original) The method of any of claims 1-3, wherein the tumor cells are further injected with at least one nucleic acid molecule encoding at least one MHC class II α chain protein and at least one MHC class II β chain protein in a form suitable for expression of the MHC class II α chain protein(s) and the MHC class II β chain protein(s).

11. (Original) The method of any of claims 1-3, wherein the tumor cells are further injected with at least one nucleic acid molecule encoding at least one MHC class I α chain protein in a form suitable for expression of the MHC class I protein(s).

12. (Original) The method of any of claims 1-3, wherein the tumor cells are further injected with a nucleic acid molecule encoding a β-2 microglobulin protein in a form suitable for expression of the β -2 microglobulin protein.

13. (Currently Amended) The method of any of claims 1-3, ~~wherein expression of the~~ further comprising inhibiting expression of an MHC class II invariant chain ~~is inhibited~~ in the tumor cells by transfection of the tumor cells with a nucleic acid molecule which is antisense to a regulatory or a coding region of the invariant chain gene.

14. (Original) The method of any of claims 1-3 wherein the solid tumor is selected from a group consisting of a carcinoma, sarcoma, melanoma and neuroblastoma.